

CASE STUDY Off-Grid – Lead-Acid Replacement



Installer: Discover Battery

We ran the generator for a total of 90 hours (over a three-month period), a shade under one hour per day. In past years, the system would require the generator to run for 4 - 6 hours every second or third day."

Ezra Auerbach – Homeowner



OVERVIEW

Discover AES LiFePO₄ 42-48-6650

In May 2017, the Auerbachs decided to upgrade their thirteen-year-old lead-acid batteries to lithium batteries, seeking better charging and discharging efficiency. Their batteries were replaced with Discover AES LiFePO₄ batteries with over 95% two-way efficiency. It didn't take them long to notice the increase in efficiency. "We ran the generator for a total of 90 hours, a shade under one hour per day." In past years, the system would require the generator to run for 4-6 hours every second or third day.

Discover®



SYSTEM

- 3x AES 42-48-6650 (19.95 kWh)
- SMA Sunny Island 6048, Sunny Boy 2000
- Morningstar 60-600 MPPT, 60-150 MPPT
- Schneider ComBox, SCP, AGS
- 8 kW Generator

APPLICATION

Off-grid home

LOCATION

Lasqueti Island, BC Canada

REQUIREMENT

Improve system efficiency, upgrade from old lead-acid battery 750 Ah (36 kWh)





FAST Charging

My confidence in this technology continues to grow. We had a cold spell and our batteries didn't *shrink* like the lead-acid used to. There was no change in performance during the below zero weather, and nothing in the way the batteries behaved over the past eight months has caused me any concern.

Ezra Auerbach – Homeowner

The increased battery efficiency that I observed stayed true throughout the winter. The speed at which they increased their SOC when the generator was running was amazing.

Melinda Auerbach – Homeowner